

IN THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning at page 1, line 6, with the following rewritten paragraph:

Priority is claimed on provisional U.S. Patent Application Nos. 60/458,078, filed March 26, 2003, and 60/459,667, filed April 1, 2003, the ~~content~~ entire contents each of which ~~[[is]]~~ are incorporated herein by reference.

Please replace the heading at page 1, line 10, with the following rewritten heading:

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Please replace the paragraph beginning at page 1, line 22, with the following rewritten paragraph:

The invention relates to an apparatus for simultaneous ~~[[OTM]]~~ OTDM demultiplexing, electrical clock recovery and optical clock generation, and an apparatus for optical clock-recovery, using a traveling-wave electroabsorption modulator.

Please replace the paragraph beginning at page 2, line 15, with the following rewritten paragraph:

The ability to generate an optical clock from a high-speed optical time-division multiplexed (OTDM) data stream and ensure correct synchronization is significant in an OTDM network node for all-optical 3R (i.e., re-generation) ~~regeneration~~. However, usually, it is necessary for realizing optical clock recovery that an additional photodetector is required

to detect the data information and an additional pulse generator is required to produce the optical clock.

Please replace the paragraph beginning at page 3, line 13, with the following rewritten paragraph:

Clock recovery for a signal other than a traveling wave can be explained by, for example, Japanese Patent Publication Hei 11-38371 disclosed February 12, 1999 (Japanese Patent Application Hei 9-189748 filed July 15, 1997). The Publication uses pulsed light as an input signal to be fed into a semiconductor light modulator. The modulator generates a photocurrent that is applied to a circulator. Regarding pulsed light other than a traveling wave (TW), a circulator is used, but is expensive. On the other hand, a traveling wave does not need an expensive circulator. In addition, a traveling wave can be used to produce an electrical clock that is accurately synchronized with the traveling wave.

Please replace the paragraph beginning at page 6, line 3, with the following rewritten paragraph:

FIG 6A, shows ~~SSH~~ single side band (SSB) noise spectra for transmitter clock, electrical recovered clock and generated optical clock.

Please replace the paragraph beginning at page 6, line 5, with the following rewritten paragraph:

FIG 6B shows a corresponding ~~RF~~ radio frequency (RF) spectrum at 1 kHz ~~RHW~~ RBW (Resolution Bandwidth).

Please replace the paragraph beginning at page 6, line 11, with the following rewritten paragraph:

FIG 9B shows a corresponding RF spectrum at 1 kHz ~~RBW~~ resolution bandwidth (RBW).

Please replace the paragraph beginning at page 7, line 1, with the following rewritten paragraph:

The invention presents a new scheme for ~~simultaneously~~ simultaneous OTDM signal demultiplexing, electrical clock recovery and optical clock generation using single one TW-EAM in order to reduce the cost and complexity of the network node. Except that the TW-EAM works as a compact demultiplexing receiver, another possible application is to convert high bit rate OTDM data to low bit rate.